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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,810	03/04/2005	Nicholas James Midgley	GB920020049US1	8811
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IBM CORPORATION IPLAW SHCB/40-3 1701 NORTH STREET ENDICOTT, NY 13760			EXAMINER TAHA, SHAQ	
			ART UNIT 2446	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,810

Applicant(s)

MIDGLEY, NICHOLAS JAMES

Examiner

SHAQ TAHA

Art Unit

2446

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38 - 49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38 - 49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

This is a Final action for application number 10/526,810 based on after non-final filed on 08/29/2008. The original application was filed on 03/04/2005. Claims 38 - 49 are currently pending and have been considered below. Claims 38, 42, and 46 are independent claims. Claims 1 - 37 are cancelled.

Response to Arguments

Applicant's arguments with respect to claims 38 - 49 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 38 - 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choquier et al. (US 5,951,694) in view of Noland et al. (US 7,080,378).

Regarding claims 38, 42, and 46, a method for allocating a real server to a pool of real servers, said method comprising the steps of: automatically sending by a first

real server to a second real server performance data of said first real server for execution of an application, said first server being part of said pool of servers, **[the Gateway 126 reads the service map 136 to obtain the CPU LOAD and CPU INDEX values for every server within the service group, wherein by reading the CPU load, the performance of server is found and sent to the load balancing gateway, (Choquier et al., Col 14, lines 62-67)],**

based on the performance data, automatically determining by said second server that said first server is functional but has reached a predetermined upper level of utilization, and in response, **[With reference to blocks 1312 and 1314, the average load is also compared to a predetermined maximum, MAX.sub. -- LOAD, to determine whether or not to add a server 120 to the service group, (Choquier et al., Col 24, lines 41 - 48)],**

automatically identifying another, available real server having said application but not currently allocated to said pool, **[The Gateway microcomputer then determines the current load of each application server in the service group, and applies a load balancing method to select an application server that is relatively lightly loaded, (Choquier et al., Col. 2, lines 48-53)],**

automatically requesting via a network from said other real server connection settings for said other real server, **[FIG. 5A illustrates the primary software and hardware communications components used when a user connects to the network by modem, (Choquier et al., Col. 4, lines 9-12)],**

automatically reconfiguring said second server to identify said other real server as part of said pool and record said connection settings for communication with said other real server, **[assume that a new server 120 is added to the host data center 104, and is initially configured to act as a MAIL server, (Choquier et al., Col. 11, lines 64-67)],**

and automatically sending, via a network, a reconfiguration request to a load balancer for said pool to allocate said other real server to said pool for handling requests for said application, **[FIG. 7 is a flow chart illustrating a load balancing technique used to select an application server to handle a request to open a service, wherein the load balancer allocates the server 120 to the pool in order handle requests, (Choquier et al., Col. 4, lines 6-10)],**

Choquier et al. doesn't explicitly teach automatically identifying another server not currently allocated to said pool,

Noland et al. teaches if some predefined resource in the virtual servers, such as CPU usage or a request queue into the cluster of servers, should reach a critical threshold, then one or more new virtual server(s) are automatically deployed, **(Noland et al., Col. 1, lines 65-67)**, in order to quickly and efficiently instantiating new servers, and then using those servers to aid in handling the increased workload, **(Noland et al., Col. 1, lines 53-56)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Choquier et al. by automatically identifying another server not currently allocated to said pool wherein Noland et al. teaches if some predefined

resource in the virtual servers, such as CPU usage or a request queue into the cluster of servers, should reach a critical threshold, then one or more new virtual server(s) are automatically deployed, **(Noland et al., Col. 1, lines 65-67)**, in order to quickly and efficiently instantiating new servers, and then using those servers to aid in handling the increased workload, **(Noland et al., Col. 1, lines 53-56)**.

Regarding claim 39, a method as set forth in claim 38 further comprising the steps of: automatically requesting, via a network from said other real server, port authentication settings for said other real server, **[Each application server 120 has a unique server ID, (Choquier et al., Col. 5, lines 20-23)]**,

and wherein the step of automatically reconfiguring said second server includes the step of recording said authentication settings, **[Each time a server 120 is selected to handle an open request, the redirector layer 519 records the selected server's ID within a session map 522, (Choquier et al., Col. 13, lines 32-37)]**.

Regarding claim 40, a method as set forth in claim 38 further comprising the subsequent steps of: based on subsequent performance data of said first server, determining by said second server that said first server is functional but under utilized such that said first server is no longer needed in said pool, and in response, automatically de-allocating said first server from said pool, **[With reference to blocks 1306 and 1308, the average load AVG.sub.-- SRVGRP.sub.-- LOAD is then compared to a predetermined minimum, MIN.sub.-- LOAD, to determine whether a**

server 120 should be removed from the service group, (Choquier et al., Col. 24, lines 34-45)].

Regarding claim 41, a method as set forth in claim 38 wherein a multiplicity of copies of said application are installed in a respective multiplicity of said servers in said pool, **[The architecture additionally features a transport mechanism that allows end users to simultaneously access multiple on-line services, (Choquier et al., Col. 1, lines 56-65)].**

Regarding claim 43, a system as set forth in claim 42 further comprising: a module, responsive to the performance data, for automatically requesting, via a network from said other real server, port authentication settings for said other real server, **[Each application server 120 has a unique server ID, (Choquier et al., Col. 5, lines 20-23)],**

And wherein the module for automatically reconfiguring said system also records said authentication settings, **[Each time a server 120 is selected to handle an open request, the redirector layer 519 records the selected server's ID within a session map 522, (Choquier et al., Col. 13, lines 32-37)].**

Regarding claim 44, a system as set forth in claim 42 further comprising: a module, responsive to subsequent performance data of said first server, for determining that said first server is functional but under utilized such that said first

server is no longer needed in said pool, and in response, automatically de-allocating said first server from said pool, **[With reference to blocks 1306 and 1308, the average load AVG.sub.-- SRVGRP.sub.-- LOAD is then compared to a predetermined minimum, MIN.sub.-- LOAD, to determine whether a server 120 should be removed from the service group, (Choquier et al., Col. 24, lines 34-45)].**

Regarding claim 45, a system as set forth in claim 42 wherein a multiplicity of copies of said application are installed in a respective multiplicity of said servers in said pool, **[The architecture additionally features a transport mechanism that allows end users to simultaneously access multiple on-line services, (Choquier et al., Col. 1, lines 56-65)].**

Regarding claim 47, a computer program product as set forth in claim 46 further comprising: seventh program instructions, responsive to the performance data, to automatically request, via a network from said other real server, port authentication settings for said other real server, **[Each application server 120 has a unique server ID, (Choquier et al., Col. 5, lines 20-23)],**

and wherein said fifth program instructions also record said authentication settings, **[Each time a server 120 is selected to handle an open request, the redirector layer 519 records the selected server's ID within a session map 522, (Choquier et al., Col. 13, lines 32-37)],**

said computer readable media stores said seventh program instructions, **[a computer-readable medium having computer-executable instructions for performing the steps, (Choquier et al., Col. 26, lines 29-36)],**

and said central processing unit to execute said seventh program instruction, **a computer-readable medium having computer-executable instructions for performing the steps, (Choquier et al., Col. 26, lines 29-36)].**

Regarding claim 48, a computer program product as set forth in claim 46 further comprising: seventh program instructions, responsive to subsequent performance data of said first server, to determine that said first server is functional but under utilized such that said first server is no longer needed in said pool, and in response, automatically de-allocate said first server from said pool, **[With reference to blocks 1306 and 1308, the average load AVG.sub.-- SRVGRP.sub.-- LOAD is then compared to a predetermined minimum, MIN.sub.-- LOAD, to determine whether a server 120 should be removed from the service group, (Choquier et al., Col. 24, lines 34-45)].**

and wherein said computer readable media stores said seventh program instructions, **a computer-readable medium having computer-executable instructions for performing the steps, (Choquier et al., Col. 26, lines 29-36)],**

and said central processing unit to execute said seventh program instructions, **a computer-readable medium having computer-executable instructions for performing the steps, (Choquier et al., Col. 26, lines 29-36)].**

Regarding claim 49, a computer program product as set forth in claim 46 wherein a multiplicity of copies of said application are installed in a respective multiplicity of said servers in said, **[The architecture additionally features a transport mechanism that allows end users to simultaneously access multiple on-line services, (Choquier et al., Col. 1, lines 56-65)].**

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S. T./

Examiner, Art Unit 2446

/Joseph E. Avellino/

Primary Examiner, Art Unit 2446